

What is claimed is:

1. An electronic device comprising:

a circuit board;

a first circuit disposed on a first side of the circuit board, the first circuit connected to a first ground plane of the circuit board;

a second circuit disposed on a second side of the circuit board, wherein the second side is opposite the first side, the second circuit connected to a second ground plane of the circuit board; and

wherein the first and second ground planes respectively lie in different planes of the circuit board and are electrically interconnected by a conductive trace disposed within the circuit board.
2. The electronic device of claim 1, wherein the first circuit is a switch-mode power supply.
3. The electronic device of claim 2, wherein the switch-mode power supply is a forward-type switch mode power supply.
4. The electronic device of claim 2, wherein the switch-mode power supply is a flyback-type switch mode power supply.
5. The electronic device of claim 1, wherein the second circuit controls the first circuit.
6. The electronic device of claim 1, wherein the first circuit is adapted to power the second circuit.

7. The electronic device of claim 1, wherein the second circuit operates at current levels substantially lower than the first circuit.

8. The electronic device of claim 1, wherein the first ground plane is disposed on the first side of the circuit board.

9. The electronic device of claim 1, wherein the second ground plane is disposed on the second side of the circuit board.

10. The electronic device of claim 1, wherein the first circuit comprises a plurality of switch-mode power supply power loops.

11. The electronic device of claim 1, wherein the circuit board comprises two or more layers disposed between the first and second sides.

12. The electronic device of claim 11, wherein the first ground plane is disposed on one of the two or more layers and the second ground plane is disposed on another of the two or more layers.

13. The electronic device of claim 1, wherein the circuit board comprises one or more layers disposed between the first and second sides.

14. The electronic device of claim 13, wherein the first ground plane is disposed on one of the one or more layers and the second ground plane is disposed on the second side of the circuit board.

15. The electronic device of claim 13, wherein the first ground plane is disposed on the first side of the circuit board and the second ground plane is disposed on one of the one or more layers.

16. A switch-mode power supply comprising:

a circuit board;

a power loop disposed on a first side of the circuit board, the power loop connected to a first ground plane of the circuit board;

a control circuit disposed on a second side of the circuit board, the second side opposite the first side, the control circuit connected to a second ground plane of the circuit board, wherein the control circuit is adapted to control the power loop; and

wherein the first and second ground planes respectively lie in different planes of the circuit board and are electrically interconnected by a conductive trace disposed within the circuit board.

17. The switch-mode power supply of claim 16, wherein the power loop is adapted to power the control circuit.

18. The switch-mode power supply of claim 16, wherein the control circuit operates at current levels substantially lower than the power loop.

19. The switch-mode power supply of claim 16, wherein the first ground plane is disposed on the first side of the circuit board.

20. The switch-mode power supply of claim 16, wherein the second ground plane is disposed on the second side of the circuit board.

21. The switch-mode power supply of claim 16, wherein the power loop comprises a plurality of power loops.

22. The switch-mode power supply of claim 16, wherein the circuit board comprises two or more layers disposed between the first and second sides.

23. The switch-mode power supply of claim 22, wherein the first ground plane is disposed on one of the two or more layers and the second ground plane is disposed on another of the two or more layers.

24. The switch-mode power supply of claim 16, wherein the circuit board comprises one or more layers disposed between the first and second sides.

25. The switch-mode power supply of claim 24, wherein the first ground plane is disposed on one of the one or more layers and the second ground plane is disposed on the second side of the circuit board.

26. The switch-mode power supply of claim 24, wherein the first ground plane is disposed on the first side of the circuit board and the second ground plane is disposed on one of the one or more layers.

27. A method for manufacturing an electronic device, the method comprising:

disposing a first circuit on a first side of a circuit board;
connecting the first circuit to a first ground plane of the circuit board;
disposing a second circuit on a second side of the circuit board, the
second side opposite the first side;
connecting the second circuit to a second ground plane of the circuit
board, wherein the first and second ground planes lie in different planes of the
circuit board; and
electrically interconnecting the first and second ground planes.

28. The method of claim 27, wherein disposing the first circuit on the first side of the circuit board comprises disposing a switch-mode power supply on the first side.

29. The method of claim 27, wherein electrically interconnecting the first and second ground planes comprises electrically interconnecting the first and second ground planes using a conductive trace.

30. The method of claim 29, further comprising disposing the conductive trace within the circuit board.

31. The method of claim 27, further comprising disposing the first ground plane on the first side of the circuit board.

32. The method of claim 27, further comprising disposing the second ground plane on the second side of the circuit board.

33. The method of claim 27, further comprising disposing the first ground plane on one of two or more layers disposed between the first and second sides of the circuit board and disposing the second ground plane on another of the two or more layers disposed between the first and second sides of the circuit board.

34. The method of claim 27, wherein disposing the second circuit on a second side of the circuit board comprises disposing a control circuit on the second side, the control circuit adapted to control the first circuit.

35. The method of claim 27, wherein disposing the first circuit on the first side of the circuit board comprises disposing a plurality of switch-mode power supply power loops on the first surface.

36. The method of claim 27, further comprising disposing the first ground plane on one of one or more layers disposed between the first and second sides of the circuit board and disposing the second ground plane on the second side of the circuit board.

37. The method of claim 27, further comprising disposing the first ground plane on the first side of the circuit board and disposing the second ground plane on one of one or more layers disposed between the first and second sides of the circuit board.

38. A method for manufacturing a switch-mode power supply, the method comprising:

disposing a power loop on a first side of a circuit board;

connecting the power loop to a first ground plane of the circuit board;

disposing a control circuit on a second side of the circuit board, the second side opposite the first side, wherein the control circuit is adapted to control the switch-mode power supply;

connecting the control circuit to a second ground plane of the circuit board, wherein the first and second ground planes lie in a different planes of the circuit board; and

electrically interconnecting the first and second ground planes.

39. The method of claim 38, wherein disposing the power loop on the first side of the circuit board comprises disposing a plurality of power loops on the first side of the circuit board.

40. The method of claim 38, wherein electrically interconnecting the first and second ground planes comprises electrically interconnecting the first and second ground planes using a conductive trace.

41. The method of claim 40, further comprising disposing the conductive trace within the circuit board.

42. The method of claim 38, further comprising disposing the first ground plane on the first side of the circuit board.

43. The method of claim 38, further comprising disposing the second ground plane on the second side of the circuit board.

44. The method of claim 38, further comprising disposing the first ground plane on one of two or more layers disposed between the first and second sides of the circuit board and disposing the second ground plane on another of the two or more layers disposed between the first and second sides of the circuit board.

45. The method of claim 38, further comprising disposing the first ground plane on one of one or more layers disposed between the first and second sides of the circuit board and disposing the second ground plane on the second side of the circuit board.

46. The method of claim 38, further comprising disposing the first ground plane on the first side of the circuit board and disposing the second ground plane on one of one or more layers disposed between the first and second sides of the circuit board.